

COMPLIANCE AGREEMENT
between the
USS MISSOURI MEMORIAL ASSOCIATION of HONOLULU, HAWAII
and
UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY

PARTIES

1. The United States Environmental Protection Agency ("EPA") and the USS Missouri Memorial Association of Honolulu, Hawaii, a non-profit corporation, (hereinafter referred to as the "DONEE") are parties to this Compliance Agreement ("COMPLIANCE AGREEMENT" or "AGREEMENT") regarding the donation by the Navy of the battleship USS MISSOURI (BB-63) (herein after referred to as the "ex-MISSOURI") to the DONEE for continued use as a static battleship memorial museum provided certain terms and conditions are met to the satisfaction of EPA.

JURISDICTION

2. This Agreement is entered into to address certain instances of the DONEE's anticipated noncompliance during the operation of the ex-MISSOURI as a static museum with the requirements of the Toxic Substances Control Act ("TSCA") 15 U.S.C. Section 2601 et seq., that relate to polychlorinated biphenyls (PCBs) and the PCB regulations at 40 CFR Part 761.

PURPOSE

3. Subject to EPA's reservation of rights, this Agreement specifies the terms and conditions under which EPA will exercise its enforcement discretion and refrain from bringing an enforcement action against the DONEE for the violations of TSCA PCB requirements and the PCB regulations at 40 CFR Part 761 that are described herein. Based on the facts presented to EPA and referenced in this agreement, EPA has determined that this exercise of enforcement discretion will serve the public interest.

COVERED MATTERS

4. This Agreement applies to both authorized and unauthorized PCB uses on the ex-MISSOURI. For authorized PCB uses, this Agreement includes terms and conditions that are in addition to existing regulatory requirements at 40 CFR Part 761.

5. This Agreement mandates sampling, maintenance, notice, training, cleanup procedures and other requirements for PCBs on the ex-MISSOURI.

6. EPA enforcement discretion regarding the transfer of the ex-Missouri from the Navy to the DONEE, was addressed in a separate EPA/Navy Agreement. That Agreement addressed

steps the Navy shall take respecting the transfer of the ex-Missouri to the DONEE in light of the presence on the ex-Missouri of PCBs.

7. This Agreement is not and shall not be construed as a release of the DONEE from any legal or regulatory obligations, including obligations under TSCA or any other environmental laws.

DEFINITIONS

8. Except as noted herein, the terms in this Agreement shall have their ordinary meaning. The following definitions apply to this Agreement:

a. "Polychlorinated biphenyls" or "PCB" and "PCBs" means any chemical substance that is limited to the biphenyl molecule that has been chlorinated to varying degrees or any combination of such material with other substances;

b. "spill" with regard to this Agreement, specifically means residual PCBs left on any ship surface resulting from any past use, management, processing, storage, transportation, or disposal, of PCBs or PCB items;

c. "PCB inventory" means the complete and final listing of suspected PCB items that was developed by the Navy upon deactivation, and any additions to that inventory that were made by the Navy, the DONEE, EPA, or any third party;

d. "wire cables" refers to the entire electrical wire cable assembly, including the metal jacket surrounding the rubber or plastic insulation, the insulation material, and the metallic wire conductor itself, as well as any connectors and circuit breakers;

e. "PCB item," for the purpose of this Agreement only, means any item that does in fact or is assumed to contain liquid PCBs. The term "PCB items" in this Agreement means transformers, capacitors, and any other piece of equipment or other material having or assumed to contain a liquid PCB component;

f. "Non-liquid PCB materials" means any non-liquid material containing any component of PCBs including all of the following items which may contain PCBs and for the purposes of this Agreement are assumed to contain PCBs on the ex-MISSOURI: caulking; felt and rubber ventilation duct flange gaskets; insulation and other non-metallic components of electrical cable; fluorescent light ballast starters and potting material; bulkhead and pipe insulation; foam rubber/plastic/fiberglass/cork anti-sweat insulation used on hull surfaces and cold water piping; other rubber products such as pipe hanger rubber blocks, snubbers, bumpers, shock and vibration mounts, pads, spools, hatch gaskets, O-rings, packing, grommets, etc.; adhesive tape and double-backed adhesive tape; dried aluminized paint; dried oil-based paint;

g. "The public" means anyone who is not involved in routine maintenance of the ex-MISSOURI and may include, but is not limited to: tourists, press personnel, business visitors, VIPs, museum employees, volunteers, vendors, and contractors. If DONEE determines that any of these individuals within the definition of the "public" requires access to the interior of the ex-MISSOURI prior to PCB sampling and encapsulation of PCBs, and/or in areas where the DONEE cannot ensure through sampling and verification by EPA that less than $10 \mu\text{g}/100 \text{ cm}^2$ PCB is on surfaces and less than $1 \mu\text{g}/\text{m}^3$ PCB is in air, then EPA Region IX Toxics Section may prescribe conditions for limited access pursuant to the requirement in 18(t). Personnel who are involved in conducting the preparation required to prepare the ex-MISSOURI to be towed and personnel who are involved in completing the requirements under this Agreement to open the ex-MISSOURI to the public are not included in this definition;

h. "Days" means calendar days, not working days, unless otherwise specified. However, if a document submittal under this Agreement falls due on a weekend or federal holiday, it will be due and deemed timely if submitted on the next business day following the weekend or holiday on which it fell due.

STATEMENT OF FACTS

9. The Navy states that in 1989, it discovered the presence of wool felt on submarines and surface ships in the Fleet with PCB concentrations up to 30% by weight. The felt was used in a number of applications including acoustical damping material on submarines, gasket material in the joints of ventilation ducts, faying or insulation material between dissimilar metals, and machinery mount insulation.

10. Prior to the 1989 discovery of this felt on its ships, the Navy states that it had no knowledge that it was using PCBs in the applications described above. The Navy further states that it procured this felt from approximately 1948 until the late 1970s for use in a variety of applications, and, in some cases, the felt may have been installed in older ships during periodic overhauls and maintenance. The ex-MISSOURI contains this felt material, which is not totally enclosed and not authorized by EPA for use. Based on the results of the Navy's PCB sampling survey on the ex-MISSOURI, this felt material was found to contain PCBs in a range of less than 5 ppm to 9 ppm. However, this sampling survey is not a complete characterization of the extent of PCBs in felt material on the ex-MISSOURI, and other felt material may exist on the ex-MISSOURI with PCB concentrations that exceed this range.

11. In 1990 and later, the Navy contends that it discovered that various solid materials, found on Navy ships and in other non-maritime industrial applications, may contain regulated PCBs. Such materials include: caulking; felt and rubber ventilation duct flange gaskets; insulation and other non-metallic components of electrical cable; fluorescent light ballast starters and potting material; bulkhead and pipe insulation; foam rubber/plastic/cork anti-swear insulation used on hull surfaces and cold water piping; other rubber products such as pipe hanger

rubber blocks, snubbers, bumpers, shock and vibration mounts, pads, spools, hatch gaskets, O-rings, packing, grommets, etc.; adhesive tape and double-backed adhesive tape; dried aluminized paint; and dried oil-based paint. The ex-MISSOURI contains some or all of these materials. Based on the results of the Navy's PCB sampling survey on the ex-MISSOURI, some of these materials were found to contain PCBs in a range of less than 5 ppm to 120 ppm. All surface contamination samples were below 10 micrograms per 100 centimeters squared ($10 \mu\text{g}/100 \text{ cm}^2$). However, this sampling survey is not a complete characterization of the extent of PCBs in these materials on the ex-MISSOURI, and other materials of these types and surface contamination may exist on the ex-MISSOURI with PCB concentrations that exceed these ranges.

12. PCB use, distribution in commerce, and disposal are regulated by EPA under 40 C.F.R. Part 761. Non-liquid PCB materials and PCB items, regardless of concentration, may not be used in a non-totally enclosed manner, within the United States unless authorized by EPA under TSCA. Certain, if not all, of the uses described in the paragraphs above are not totally enclosed, and are not authorized by EPA.

13. A representative of the DONEE states the following: The USS MISSOURI was launched at the Brooklyn Navy Yard on January 29, 1944. The ship served in World War II and the Korean War and was decommissioned on February 26, 1955. It remained in inactive status from its decommissioning until May 14, 1984, when it began a two-year overhaul and modernization. On March 31, 1992, the ship was again decommissioned. The Navy advises EPA that when the ex-MISSOURI was stricken from the Naval Vessel Register, in January 1995, the Navy conducted the following activities: a ship wide PCB inventory was conducted; leaking electrical equipment was removed from the vessel; and spills were cleaned up in accordance with the provisions of 40 CFR Part 761; non-leaking PCB items were left intact, inventoried and labeled; hydraulic and heat transfer systems were tested and, if their fluids tested above 50 ppm PCB, they were drained and possibly retro filled.

14. When felt is removed from ventilation duct work or other sites, the adjacent area formerly in contact with the felt typically contains residual PCBs from the felt. Because this contamination has probably existed since the felt was installed, the release or spill is deemed to have occurred prior to May 4, 1987. Therefore, the PCB Spill Cleanup Policy, 40 CFR 761, Subpart G, does not apply.

15. The Navy contends that PCBs in the jackets of wire cables are inextricably bound in the material of the jacket. The material is a corrosion resistant plastic or rubber designed for use in a salt air/salt water environment. EPA has determined that the PCBs in the wire cables is not a totally enclosed use and is not currently authorized for use under TSCA.

16. The Navy asserts that due to the location, configuration, and manner in which felt is used, the exposed surfaces of felt gaskets are extremely limited. Therefore, other than incidental dermal contact, the exposure to PCBs would be considered minimal. Moreover, the public should not have contact with the felt following encapsulation procedures.

17. Under 10 U.S.C. Section 7306, the Navy is authorized to donate ships to state governments and non-profit organizations for use as museums and memorials. Pursuant to this statutory authority, the Navy intends to donate the ex-MISSOURI to the DONEE for use as a battleship memorial and museum. The Donation Contract, Contract # N00024-98-C-0201 ("Donation Contract"), which is the sole legal document evidencing title transfer from the Navy to the DONEE, shall require the DONEE to maintain the ex-MISSOURI in a condition satisfactory to the Navy including the management of the ex-MISSOURI in accordance with the requirements established by this Agreement between the DONEE and EPA.

REQUIREMENTS AND DELIVERABLES INCLUDING DISPOSAL OF PCB ITEMS, PREPARATION OF TOUR ROUTE, MAINTENANCE, QUALITY ASSURANCE, ULTIMATE DISPOSAL, AND FINANCIAL ASSURANCE

18. The following requirements and deliverables shall be documented for or submitted to EPA Region IX Toxics Section within the time frames prescribed. Region IX Toxics Section shall determine the adequacy and completeness of all submissions required under this Agreement. Where an action or series of actions is required, the DONEE shall provide EPA Region IX Toxics Section with written confirmation that the requirement has been met. In any requirement in which the DONEE is required to provide a deliverable for EPA Region IX Toxics Section approval, EPA shall respond to that submission within a certain timeframe. Anytime the DONEE is required to make a submission at least 60 days prior to commencement of tours, EPA will respond no later than 30 days following receipt of that submission unless the parties agree in writing to alter the timeframe for submission and/or response.

(This agreement, including all technical discussions, applies only to PCBs and does not address DONEE's responsibilities with respect to any other regulated materials.)

DISPOSAL OF PCB ITEMS

a. The DONEE is required to inspect the ex-MISSOURI, and is required to dispose of PCB items which are found on the ex-MISSOURI or are listed on the PCB inventory. Dry transformers are not defined as PCB items and need not be removed. The DONEE shall provide documentation for EPA Region IX Toxics Section approval for any dry transformers from the PCB inventory listing that the DONEE will not be removing. If the DONEE is unable to remove any other PCB items found on the ex-MISSOURI or listed on the PCB inventory due to their locations on the vessel or if the structural integrity of the vessel would be jeopardized by their removal, the DONEE shall consult with EPA, who in consultation with the Navy shall determine whether the PCB item shall be removed. Removed PCB items shall be disposed of in accordance with PCB disposal regulations at 40 CFR Part 761. The removal of these PCB items shall be completed prior to towing the ex-MISSOURI to Hawaii. If additional PCB items are found, the DONEE shall advise EPA of their discovery and dispose of them in accordance with the PCB disposal regulations at 40 CFR Part 761. DONEE shall provide written notification to EPA Region IX Toxics Section certifying that PCB items found on the ex-MISSOURI and those listed

on the PCB inventory have been removed and disposed of in accordance with the PCB disposal regulations prior to the vessel's tow to Hawaii. This notification shall be provided to EPA prior to towing the vessel.

PREPARATION OF TOUR ROUTES, MAINTENANCE AND RECORD KEEPING PROCEDURES, AND NOTIFICATION REQUIREMENTS

b. At least 60 days prior to commencement of tours, (or within a time frame mutually agreed to in writing by EPA Region IX Toxics Section and DONEE) the DONEE shall submit to EPA Region IX Toxics Section for its approval, a document describing the type and location of any remaining PCB items and known or suspected non-liquid PCB materials on the ex-MISSOURI located along the proposed tour route and in areas that may be accessed by the public. This document shall be updated and provided to EPA Region IX Toxics Section immediately upon discovery of any additional PCB items or non-liquid PCB materials not included in the initial listing. Proposed tour routes shall be highlighted on the ex-MISSOURI's blueprints or maps for EPA Region IX Toxics Section approval. Upon approval by EPA Region IX Toxics Section, the blueprints or map shall be deemed a part of the agreement by reference and/or attachment.

c. No later than 21 days following the ex-MISSOURI's arrival in Honolulu, (or within a time frame mutually agreed to in writing by EPA Region IX Toxics Section and DONEE), the DONEE shall develop (and EPA Region IX Toxics Section shall approve) a sampling scheme for complete sampling and analysis of surface and indoor air for PCBs in areas where the public is expected to have access, in order to establish a baseline/background and/or to determine if PCB levels are acceptable before the public enters the area. The number of surface and air samples required shall correlate to the size of the proposed tour area. Any oil, especially oil from equipment that may have leaked; or grease stains, especially grease in any hoist apparatus or dumbwaiter tract, discovered on any surface in areas to be opened to the public, shall be sampled for PCB contamination. Sampling, analysis, and associated activities related to known or suspected PCBs on surfaces shall be conducted by DONEE or under DONEE's direction to ensure conformance with the following EPA directives and others as specified by EPA Region IX Toxics Section: "Wipe Sampling and Double Wash/Rinse Cleanup as Recommended by the Environmental Protection Agency PCB Spill Cleanup Policy" June 23, 1987, Revised and Clarified on April 18, 1991; extract and analyze sampling media in accordance with Methods 3500/3540B and Method 8082 in "SW-846, Test Methods for Evaluating Solid Waste;" conduct all sample preservation chain-of-custody record-keeping and quality assurance/quality control ("QA/QC") records in accordance with "Interim Guidelines and Specifications for Preparing Quality Assurance Project Plans (QAMS-005/80);" and conduct air monitoring for PCBs in accordance with NIOSH Method 5503. When using NIOSH Method 5503, DONEE shall sample indoor air for no less than eight hours and shall collect a sufficient air sample so as to provide for a chemical extraction and analysis of the sample to have a limit of quantitation of less than 1 microgram per cubic meter ($1\mu\text{g}/\text{m}^3$). Regardless of whether DONEE intends to operate air handling systems in areas open to the public, the DONEE is required to take baseline air

sampling. If DONEE intends to use the air handling systems, they must be on and operational during the baseline air sampling.

d. The DONEE shall execute the EPA Region IX Toxics Section approved sampling plan no later than 30 days following EPA approval of the plan (or within a time frame mutually agreed to in writing by EPA Region IX Toxics Section and DONEE) and prior to performing any encapsulation of non-liquid PCB materials. DONEE shall provide EPA Region IX Toxics Section with the sampling results no later than 21 days after the samples are taken and at least 90 days prior to the commencement of tours (or within a time frame mutually agreed to in writing by EPA Region IX Toxics Section and DONEE.) If test results confirm PCB concentrations of $>10 \mu\text{g}/100 \text{ cm}^2$ on surfaces, DONEE will inform EPA Region IX Toxics Section which will determine the appropriate clean up protocols. The DONEE shall ensure compliance with the disposal procedures outlined in 40 CFR 761.60 and the storage procedures outlined in 40 CFR 761.65 for waste containing or consisting of PCBs. DONEE agrees to conduct any additional sampling that EPA may determine necessary within timeframes established by EPA in consultation with the DONEE.

e. The DONEE is required to ensure that the public is restricted to areas sampled and verified by EPA to be less than $10 \mu\text{g}/100 \text{ cm}^2$ PCB on surfaces, and less than $1 \mu\text{g}/\text{m}^3$ PCB in air. DONEE is required to inform EPA in writing within 48 hours of DONEE's discovery that any area open to the public exceeds these levels. EPA may prohibit or re-route tours based upon monitoring results. DONEE shall immediately suspend or re-route tours upon written request from EPA personnel.

f. The DONEE shall remove all PCB ballasts from fluorescent lights along the proposed tour route and in areas that may be accessed by the public before tours are conducted or meetings held in these areas or the DONEE shall provide for EPA Region IX review and approval, any information which would demonstrate that any fluorescent light ballast not removed does not contain detectable concentrations of PCBs. DONEE has provided information for EPA review. EPA Region IX Toxics Section will respond to this information within 60 days of the execution of this Agreement.

g. The suspected non-liquid PCB materials, especially any caulking material, located on proposed tour routes or in areas accessible to the public shall be encapsulated by application of two coats of paint in different colors by the DONEE before the ex-MISSOURI is opened to the public. The first coat of encapsulant shall be a yellow color that is similar in shade to the PCB warning labels unless there is already a yellow color adjoining the encapsulation, in which case the first coat of encapsulant shall be red. The second coat shall be any color contrasting with yellow, or contrasting with red, if that color is applied as the first coat. When any portion of the secondary coat wears away or becomes disassociated (eg. chips off) from the non-liquid PCB material, a new secondary coat shall be applied to the affected area by the DONEE. In the event that the primary coat becomes disassociated from the non-liquid PCB material, the primary and the secondary coat shall be re-applied within 48 hours of the primary coat's disassociation from

the non-liquid PCB material. In the event that only the secondary coat becomes disassociated from the primary coat, the secondary coat shall be reapplied within 3 days of the secondary coat's disassociation from the primary coat. The DONEE shall forewarn painters of the likely presence of PCBs and advise them of procedures to minimize exposure (including no scraping or sanding of substrate unless necessary.) The DONEE shall require painters to use appropriate protective measures such as protective clothing, eye protection and respirators, as specified by EPA Region IX Toxics Section if painters or other personnel engage in scraping or sanding of this material. Any dust generated during scraping or sanding shall be carefully removed from the area as soon as possible and before the public has access to that area, and disposed of in accordance with applicable regulatory requirements. Upon completion of encapsulation requirements, DONEE shall notify EPA in writing.

h. At least 60 days prior to commencement of tours, (or within a timeframe mutually agreed to in writing between EPA Region IX Toxics Section and DONEE) the DONEE shall submit for EPA Region IX Toxics Section approval, a regular/routine maintenance schedule and maintenance procedures for areas open to the public. This requirement shall include the provision that the DONEE's maintenance staff shall conduct regular monthly inspections to see whether the paint covering the caulking and other non-liquid PCB material has worn through or become disassociated from the materials. The written results of these inspections which shall include the date of discovery of either a primary coat and/or secondary coat becoming disassociated with the non-liquid PCBs and the date that reapplication of paint was accomplished, shall be collected and sent to EPA Region IX Toxics Section quarterly. Written results of maintenance procedures performed in areas open to the public shall include a listing of any PCB items or non-liquid PCB materials removed from their present locations once the area is open to the public. These records shall be collected and sent to EPA Region IX Toxics Section quarterly. EPA Region IX Toxics Section and DONEE shall discuss reporting requirements following one year of maintenance record-keeping and paint inspections, and this Agreement shall be amended as necessary at that time.

i. DONEE shall make available to any potentially exposed employee or any other potentially exposed individual engaged in repair, remedial, removal or disposal activities, information required under the Occupational Safety and Health Administration (OSHA) Hazard Communication Program at 29 CFR § 1910.1200(h) before disturbing any materials identified as PCB items, non-liquid PCB materials, or PCB spills. DONEE shall post a copy of Appendix A at a site visible to any potentially exposed individual. Appendix A shall be provided to the primary fire department servicing the ex- MISSOURI and if applicable, the local emergency planning agency (LEPA) in Honolulu no later than the date the vessel arrives in Honolulu.

j. DONEE shall maintain, intact and in place in their existing application, the PCBs described as non-liquid PCB materials, unless normal maintenance or renovation requires their removal. Removed non-liquid PCB materials at concentrations of 50 ppm or greater shall be disposed of in accordance with the PCB regulations at 40 CFR Part 761.

k. If the air handling systems containing PCB gaskets are not used to supply air in areas open to the public, there are no annual air monitoring requirements for these areas. If air handling systems containing PCB gaskets are used to supply air in areas open to the public, air shall be monitored by the DONEE for PCBs annually, or as otherwise required by EPA Region IX Toxics Section following the results of required baseline air sampling. DONEE shall provide for EPA Region IX Toxics Section in writing, the data on PCB concentrations in air collected during air sampling, simultaneously with the DONEE's receipt of the results, but no later than 21 days following the air sample being collected by the laboratory.

l. If there are repairs to the air handling systems providing air to areas open to the public in which PCB gaskets or the encapsulating materials over the gasket material are disturbed (including removal of either the gasket material or the encapsulating material) the monitoring frequency shall increase to a minimum of quarterly for the period of one calendar year following the repairs. DONEE shall provide for all air monitoring reports to be submitted to EPA Region IX Toxics Section in writing, simultaneously with the DONEE's receipt of the air sampling results, but no later than 21 days following the air sample being collected by the laboratory.

m. Air Monitoring shall indicate less than one microgram per cubic meter ($1\mu\text{g}/\text{m}^3$) in accordance with NIOSH Method 5503. DONEE shall sample indoor air for no less than eight hours and shall collect a sufficient air sample so as to provide for a chemical extraction and analysis of the sample to have a limit of quantitation of less than 1 microgram per cubic meter ($1\mu\text{g}/\text{m}^3$). If the daily or weekly monitoring results indicate a PCB concentration exceeding $1\mu\text{g}/\text{m}^3$, before the sampled areas can be open to the public, the following activities shall be completed in sequence, and repeated as necessary, until the PCB air concentration is $<1\mu\text{g}/\text{m}^3$: The air handling system shall be turned off in the affected areas, the area shall be thoroughly ventilated with the outside air, the air handling system shall be cleaned, and monitoring shall be re-initiated with the air handling system operating after hours, while tours are not being conducted. Monitoring results exceeding the daily or weekly levels of $1\mu\text{g}/\text{m}^3$ shall be reported in writing by the DONEE to the EPA Region IX Toxics Section within 48 hours of DONEE receiving the results.

n. Donee shall provide training of maintenance workers and tour guides on PCB items and non-liquid PCB materials. This training shall be provided by personnel qualified to recognize PCB items and non-liquid PCB materials. DONEE shall ensure that employees, volunteers, and maintenance workers successfully complete the training course prior to the employee beginning work on the ship and annually thereafter. A manual for this training shall be submitted to and approved by EPA Region IX Toxics Section 30 days prior to the commencement of training (or within a time frame mutually agreed to in writing by EPA Region IX Toxics Section and DONEE). DONEE shall retain the records of individuals successfully completing the course, and shall produce this information to EPA upon request.

o. The DONEE shall provide a 30 day written advance notice to EPA Region IX prior to the removal of PCB items and non-liquid PCB materials (unless the maintenance or

removal is a spill, and/or necessitated by emergency, then notice may be issued concurrently with the spill remediation or emergency maintenance or removal).

p. In the event that the DONEE desires to open new areas to the public which have not previously been sampled, the DONEE shall submit a written request to EPA Region IX Toxics Section for approval. As part of that request, the DONEE shall submit a sampling scheme in writing to EPA Region IX Toxics Section for their approval, based upon the one developed under paragraph 18(c) above. The sampling plan shall provide for air and surface sampling in the areas that the DONEE wishes to open to the public. The DONEE shall implement the EPA approved sampling plan and provide the sampling results to the EPA Region IX Toxics Section. Once EPA Region IX reviews and approves the sampling results, the DONEE may proceed with the other requirements specified in this agreement, such as encapsulation.

q. Physical access to all areas not designated as accessible to the public on the approved map must be effectively prohibited by the DONEE. These security measures, which must not impede fire escape routes, shall be reported in writing to EPA Region IX Toxics Section for approval at least 30 days prior to commencement of tours, (or within a time frame mutually agreed to in writing by EPA Region IX Toxics Section for approval.) and shall be noted on blueprints or maps provided to EPA Region IX Toxics Section.

r. Thirty days prior to commencement of tours, (or within a time frame mutually agreed to in writing by EPA Region IX Toxics Section and DONEE) the DONEE shall provide EPA Region IX Toxics Section with written notice of the date that tours are scheduled to begin.

s. If during the term of this Agreement, the DONEE discovers additional significant unauthorized uses of PCBs other than those described in this Agreement, it shall inform EPA Region IX Toxics Section and EPA's Office of Pollution Prevention and Toxics, National Program Chemicals Division, 401 M St., SW, Washington, D.C. 20460 (mailcode 7404) within 48 hours of such discovery. These EPA offices will determine, in consultation with the DONEE, the extent, if any, to which the terms of the Agreement cover the newly discovered use. A significant use for purposes of this paragraph shall be one involving more than 1.36 kg (3.0 pounds) of PCBs.

t. If DONEE determines that members of the "public" require access to the ex-MISSOURI prior to PCB sampling and encapsulation of PCBs, and/or in areas where the DONEE cannot ensure through sampling and verification by EPA that less than $10 \mu\text{g}/100 \text{ cm}^2$ PCB is on surfaces, and less than $1 \mu\text{g}/\text{m}^3$ PCB is in air, then DONEE shall request in writing that EPA Region IX Toxics Section approve in writing such an exception. DONEE shall submit the request at least 7 days prior to the anticipated visit, including the location on the ex-MISSOURI that they need to visit, the anticipated duration of the visit and the purpose of the visit, including an explanation of the need to visit prior to EPA verification of PCB levels. EPA Region IX Toxics Section may prescribe conditions for limited access, including non-operation of air handling systems in areas to be visited. DONEE agrees to ensure that public visitors will comply

with all requirements prescribed by EPA Region IX Toxics Section. DONEE shall provide EPA Region IX Toxics Section with information concerning operating and maintenance personnel who will be engaged in meeting the requirements of this Agreement, routine maintenance, or towing of the ex-MISSOURI requiring them to access areas that have not been tested for PCBs or encapsulated. DONEE shall provide information to EPA Region IX Toxics Section within 10 days of executing this Agreement, concerning the time periods these personnel are anticipated to spend in areas not sampled and verified by EPA to be less than $10 \mu\text{g}/100 \text{ cm}^2$ PCB on surfaces and less than $1 \mu\text{g}/\text{m}^3$ PCB in air. DONEE acknowledges that EPA Region IX Toxics Section may require DONEE to ensure that these personnel wear protective clothing and apparatus based upon anticipated exposure to PCBs on the ex-MISSOURI.

MAINTENANCE OF FELT GASKETS

19. If vessel repairs, damage, alteration, maintenance, conversion or the like result in the opening or disturbing of felt gaskets on the ex- MISSOURI, or if there is any evidence of PCB contamination that has spread from uses such as felt gaskets, the disturbed area shall be treated as the source of the contamination shall be corrected according to one or more of the following methods, provided that the method selected is fully effective in preventing human and environmental exposures from PCB releases during the vessel's lifetime in areas open to the public..

A. Disturbance and Removal- Felt gaskets that are disturbed in areas open to the public or in air handling systems servicing areas open to the public, shall be removed and the surfaces formerly in contact with the suspected PCB felt gaskets, as well as an area extending six inches on all sides surrounding those surfaces, shall be cleaned achieving PCB levels of no greater than $10 \mu\text{g}/100 \text{ cm}^2$ or else areas cleaned to no greater than $100 \mu\text{g}/100 \text{ cm}^2$ may be encapsulated.

B. Encapsulation - Two coats of an effective coating in accordance with the procedures described in paragraph 18(g) shall be applied to cover any surface that has been in contact with PCB felt materials as well as an area extending six inches on all sides surrounding those surfaces. Locations of encapsulated areas shall be documented and included in maintenance inspections for quarterly written submissions to EPA Region IX Toxics Section.

C. Removal or Disposal - Readily accessible items such as felt gaskets at ventilation duct junctions which are disassembled during the course of work shall be disposed of in accordance with 40 CFR 761.60. In specific cases where encapsulation or cleaning as described above cannot be employed or are not fully effective, items contaminated with PCBs shall be removed and disposed of in accordance with 40 CFR 761.60.

20. Removal of ventilation ducts containing felt flange gaskets:

A. DONEE shall ensure that this procedure is accomplished by personnel wearing appropriate protective clothing, respirator and eye protection as required by EPA Region IX

Toxics Section. DONEE shall ensure that personnel shall be trained in maintenance procedures applicable to these materials (Maintenance and removal of wire cables shall also be accomplished by trained individuals in protective clothing). Maintenance procedures shall include recognition of potentially contaminated felt flanges, cleaning methods, and disposal requirements.

B. When removal procedures include the use of cleaning brushes or portable ventilation duct cleaning machines, the resultant dirt or debris shall be disposed of in accordance with PCB disposal requirements at 40 CFR 761.60. Brushes and vent duct cleaning equipment shall be disposed of in accordance with 40 CFR 761.60.

C. Following the removal of the gasket material (when necessitated by opening flanges or otherwise disturbing the felt material), cleaning or encapsulation of the resulting contamination must be performed in accordance with the procedures outlined above.

ULTIMATE DISPOSAL OF THE ex-MISSOURI

21. When the useful life of the ex-MISSOURI as a battleship memorial museum has terminated, the DONEE shall contact the Navy pursuant to the terms of the Donation Contract as restated in the EPA/Navy Transfer Agreement. DONEE shall also advise EPA in writing that disposal of the vessel is contemplated. Nothing in this agreement relieves the DONEE of liability under TSCA or any other environmental statute or regulation for the disposal of the vessel in accordance with environmental laws and regulations. Unless the MISSOURI is returned to the Navy, the DONEE shall dispose of any PCBs remaining on the vessel in accordance with the storage and disposal requirements of 40 CFR 761.

PRESENCE ON THE EX-MISSOURI OF OTHER ENVIRONMENTAL CONTAMINANTS

22. DONEE acknowledges that the ex-MISSOURI contains substances in addition to PCBs which may be regulated under state and/or federal environmental laws and regulations. These substances may include but are not limited to asbestos, lead, and sodium chromate. These substances are not addressed in this Agreement. DONEE acknowledges its responsibility to adhere to all applicable environmental laws and regulations concerning these substances as well as any others which are on the ex-MISSOURI.

FINANCIAL ASSURANCE

23. The DONEE shall take all necessary steps and use its best efforts to obtain timely funding to meet its obligations under this Agreement. The DONEE shall obtain adequate financial assurance to cover the obligations detailed in the Requirements and Deliverables Section, Paragraphs 18-20. Additionally, DONEE shall provide financial assurance for the disposal of any items referenced in 18(a) which are to remain on the vessel at the onset of this

agreement, but at some later time become designated for disposal. DONEE acknowledges that regardless of the money budgeted to meet the requirements of this Agreement, DONEE is responsible for compliance with the terms of this Agreement as well as all other environmental requirements concerning asbestos and the management and disposal of any other environmental contaminants aboard the vessel that may be governed by regulations promulgated under TSCA, the Resource Conservation and Recovery Act or other applicable Federal or State statutes or regulations which are not addressed in this agreement.

The DONEE shall provide EPA Region IX Toxics Section with documentation that \$5.5 million in loans and community pledges are available to develop the MISSOURI into a battleship memorial museum and to perform the preparation, maintenance, training, and operating procedures required under this Agreement. Of this total amount, the DONEE must provide written financial assurance of a dedicated budget in the amount of at least \$50,000, which shall not be considered the limit of DONEE's liability, to perform the requirements and deliverables, including the sampling and analysis necessary to perform the baseline sampling, and maintenance of the non-liquid PCB materials as necessary to comply with the terms of this Agreement. The cost of disposal for the PCB items which are found or are listed on the PCB inventory, are not included in the \$50,000 financial assurance because the removal of these items is required as a condition precedent to the towing of the vessel to Honolulu. If the provision in 18(a) is modified to permit removal of these PCB items after the vessel is towed to Honolulu, then financial assurance requirements shall be increased to cover the estimated cost of disposal of the PCB items in Honolulu.

This written evidence of financial assurance, including a detailed budget, shall be provided to EPA Region IX Toxics Section for approval at least 90 days prior to commencement of tours. Following the initial \$50,000 set-aside, on the commencement of each fiscal year, beginning in FY 1999, the DONEE shall dedicate a minimum of \$30,000 as supported by a detailed budget, to maintain compliance with the Requirements and Deliverables Section of this Agreement. The use of the fund shall be restricted for the purposes set forth in this Agreement. The DONEE may provide a letter of credit issued by a federally-insured financial institution in the amount of such reserve fund requirement to be drawn upon in accordance with the terms of this Agreement. The DONEE shall maintain accurate budget information concerning implementation of this Agreement and shall provide this information in writing to EPA Region IX Toxics Section upon request.

24. The DONEE shall provide a signed copy of this Agreement to all contractors, subcontractors, laboratories, and consultants retained after the effective date of this Agreement to conduct or monitor any portion of the work to be performed pursuant to this Agreement before such work is commenced. As to existing contracts, the DONEE shall provide a copy of this Agreement to existing contractors within thirty (30) days of the effective date of this Agreement and at least 7 days prior to any contract personnel performing PCB maintenance, clean up or disposal activities as specified in this Agreement.

INSPECTION

25. DONEE hereby agrees to allow federal or state inspectors, including EPA, whose inspection would relate in any way to health, safety or environmental conditions, to board the ex-MISSOURI at any time and view any and all portions of the vessel, including any records or documents, and take any samples they deem appropriate. DONEE also agrees to furnish all documents to Federal or State inspectors upon request, relating in any way to health, safety, or environmental conditions on, or potentially caused by materials from the ex-MISSOURI.

ENFORCEABILITY

26. In the event of noncompliance by DONEE with any provision of this document, EPA reserves the right to pursue any remedies that it may have under TSCA or any other law for any violations of TSCA described in this Agreement. The DONEE shall provide written notification to be received within 48 hours by EPA Region IX Toxics Section of any known or suspected breach of this Agreement. Failure to do so may itself constitute a material breach of this Agreement. DONEE shall immediately suspend or re-route tours upon request from appropriate EPA personnel as determined by EPA Region IX Toxics Section or EPA Headquarters. In the event of a material breach by the DONEE of the terms and conditions of the Agreement, EPA shall notify the DONEE and afford it an opportunity to correct the problem unless EPA determines that the material breach has created an emergency situation. Then EPA may choose to immediately terminate the Agreement and/or pursue any options available to resolve the problem. If the DONEE has failed to correct the problem within a time period specified in writing by EPA, EPA may, at its sole discretion, terminate this Agreement by written notice to the DONEE. The determination of what constitutes a material breach shall be decided by EPA. This paragraph shall not be interpreted to limit EPA authority specified in paragraph 30, termination.

MODIFICATIONS

27. Modifications to this Agreement may be requested by EPA or the DONEE. Except as otherwise provide herein all such modifications shall be by mutual agreement of the signatories to this Agreement. All modifications requiring mutual agreement of EPA and the DONEE shall be ineffective unless in writing and shall be effective as of the date the last party affixes its signature. If the law or regulations relating to the matters covered in this Agreement changes, both parties reserve the right to request modification to this Agreement to reflect such changes. Failure to agree upon such changes may result in termination of this Agreement by EPA.

ACTIONS, RECORDKEEPING AND REPORTING REQUIREMENTS

28. This provision is intended as a list and summary of the requirements and deliverables requiring actions, RECORDKEEPING and/or reporting by DONEE to EPA pursuant to the

terms in this Agreement. This list is intended as an aid and does not supplant or replace any requirements listed in the Agreement. They are:

18a. Removal and disposal of PCB Items found and listed on the PCB Inventory; DONEE required to certify to EPA Region IX Toxics Section that removal and disposal of these items from the ex-MISSOURI was accomplished prior to towing;

18b. Provide for EPA approval, a document describing PCB items and non-liquid PCB materials located along proposed tour route and in areas to be open to the public; Highlighting blueprint or map to be included; for submission to EPA at least 60 days prior to commencement of tours; to be updated upon discovery of additional items;

18c. Develop and submit for EPA approval a sampling plan for surfaces and indoor air to establish a baseline; for submission to EPA no later than 21 days following the arrival of the ex-MISSOURI in Honolulu.

18d. Execute sampling plan no later than 30 days following EPA approval of the sampling plan; provide EPA with sampling results no later than 21 days after samples are taken;

18e. Ensure areas open to the public meet PCB standards; advise EPA in writing within 48 hours upon discovery that levels exceed the standard;

18f. Remove PCB ballasts from fluorescent lights before tours or meetings are held, or supply information that the ballasts are non-PCB. DONEE provided this information. EPA Region IX Toxics Section, will respond to the information provided within 60 days of the execution of this Agreement.

18g. Encapsulation requirements for non-liquid PCB material; upon completion of encapsulation requirements, DONEE shall notify EPA in writing.

18h. Submission of maintenance schedule and procedures to EPA at least 60 days before commencement of tours; monthly inspections with written reports submitted to EPA quarterly.

18i. OSHA material made available to potentially exposed individuals involved in repair, removal, disposal activities, Posting of Appendix A in view of these individuals. Appendix A to be provided to fire department and LEPA no later than the date the ex-MISSOURI arrives in Honolulu.

18j. Maintain the non-liquid PCBs in their place.

18k. For areas open to the public where air handling systems are in use, annual air

sampling, results provided to EPA concurrently with DONEE, but no later than 21 days following the sample collection.

18l. Repairs to air handling system; quarterly sampling required, results provided to EPA, same as above.

18m. Air sample requirements; monitoring results exceeding prescribed levels to be reported to EPA by DONEE within 48 hours of DONEE's receipt of the results.

18n. Submission to EPA of a training Manual for EPA approval 30 days prior to the start of training. DONEE to retain records of individuals completing the course

18o. 30 day advance notice to be provided to EPA before the removal of PCB items and non-liquid PCB materials, unless emergency situation then concurrent notice.

18p. Procedures for opening new tour areas

18q. Security measures to be provided to EPA for approval 30 days prior to commencement of tours.

18r. Notice to EPA of date tours will begin due to EPA 30 days before they start.

18s. Discovery of additional PCB uses, notice to EPA

18t. Special access provisions

Maintenance of felt gasket provisions are described in 19 and 20; Ultimate disposal is addressed in 21; other environmental contaminants is addresses in 22; financial assurance requirements are set out in 23; and inspection requirements are addressed in 25.

PARTIES BOUND AND NOTICE OF TRANSFER

29. The provisions of this Agreement shall apply to and be binding upon the parties to this Agreement and their current and future officers, directors, agents, servants, employees, successors, and assignees in their respective capacity. The undersigned representative of each party to this Agreement certifies that he or she is fully authorized by the party whom he or she represents to enter into the terms and conditions of this Agreement, to execute it on behalf of that party, and to legally bind the party on whose behalf he or she executes this Agreement. No change in ownership, corporate, or partnership status of DONEE will in any way alter the responsibilities of the DONEE or its successors or assigns under this Agreement.

TERMINATION

30. When, in EPA's determination, a concern arises which EPA determines cannot be addressed in Paragraph 26 (enforceability), or Paragraph 27 (modification) then EPA may exercise its enforcement discretion and terminate this Agreement. EPA will provide written notice to the DONEE stating its reason for termination. EPA will specify a time for DONEE to respond prior to the effective date of termination.

EFFECTIVE DATE

31. This Agreement shall become effective upon execution by authorized representatives of EPA and the DONEE. In the event that the authorized representatives of EPA and the DONEE do not execute the Agreement on the same day, the Agreement shall become effective upon the date on which the last party affixed its signature to the Agreement.

THE PARTIES SO AGREE:



Robert Marcus
Regional Administrator
Region IX
U.S. Environmental Protection Agency

4/16/98
Date



Edwin L. Carter
Chairman
U.S. Missouri Mineral Association
Hannibal, Missouri

April 16, 1998
Date

CONCURRENCE:



Steven A. Hartman
Assistant Administrator for
Enforcement and Compliance Assurance
U.S. Environmental Protection Agency

4/16/98
Date

**In Re: PCB Abatement of Missouri
Compliance Agreement Between the State and
the United States Environmental Protection Agency, Washington D.C.**

APPENDIX A

PCB FACT SHEET DEVELOPED AS PART OF AN EPA/USS MISSOURI MEMORIAL ASSOCIATION AGREEMENT TO PERMIT THE CONTINUED USE OF THE USS MISSOURI WITH UNAUTHORIZED PCBs

Polychlorinated biphenyls (PCBs) are a toxic environmental contaminant. For information on health effects and toxicity, please call the Environmental Protection Agency's TSCA Assistance Information Service at (202) 554-1404.

PCBs have been used, in a liquid form, in the dielectric fluid of electrical transformers, capacitors, oil-filled cable, and fluorescent light ballasts; and in hydraulic systems. Most of the regulated liquid PCBs have been removed from the MISSOURI. PCBs were also added as plasticizers and fire retardants to a variety of commercial-type products.

The Navy has found that the following items on some vessels constructed before 1979 may contain PCBs in regulated quantities: caulking; felt and rubber ventilation duct flange gaskets; insulation and other non-metallic components of electrical cable; fluorescent light ballast starters and potting material; bulkhead and pipe insulation; foam rubber/plastic/fiberglass/cork anti-sweat insulation used on hull surfaces and cold water piping; other rubber products such as pipe hanger rubber blocks, snubbers, bumpers, shock and vibration mounts, pads, spools, hatch gaskets, O-rings, packing, grommets, etc.; adhesive tape and double-backed adhesive tape; dried aluminized paint; and dried oil-based paint.

The items listed above could be found anywhere on the MISSOURI. Such non-liquid items are generally not marked. The non-liquid items should be maintained intact and in place in their existing locations, unless removal is essential to work being undertaken. If such items are removed, they must be handled, stored, and disposed of as regulated PCB items in accordance with the requirements of Part 761 of title 40, Code of Federal Regulations, unless tested and found not to contain regulated PCBs.